

## PROCEEDINGS

OF THE

## BIOLOGICAL SOCIETY OF WASHINGTON

NEW RECORDS OF *ONOMERIS UNDERWOODI* COOK  
(DIPLOPODA: GLOMERIDA: GLOMERIDAE)BY NELL B. CAUSEY  
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Four species representing three genera of the opisthandrous family Glomeridae have been collected in the United States. Three are in the Southern States and the fourth is in California. There probably are others. They are small, dark, easily confused with isopods, and difficult to collect.

KEY TO THE FAMILY GLOMERIDAE IN THE SOUTHERN  
STATES BASED ON THE MALE

1. The telopodite of the seventeenth legs is composed of four small segments. None of the mesial processes on the telopodite of the gonopods (nineteenth legs) are corrugated .....

*Trichomeris sinuata* Loomis

The telopodite of the seventeenth legs is composed of three small segments. The last two of the mesial processes on the telopodite of the gonopods are finely corrugated ..... (*Onomeris*) 2

2. The body surface is without pubescence. There is no mesial process on the first segment of the telopodite; segments two and three have three processes, of which none has a long seta at the apex .....

*O. australora* Hoffman

The body surface is finely pubescent. There are one mesial process on the first segment and three on segments two and three of the telopodite; the two proximal processes each bears a single long seta at its apex .....

*O. underwoodi* Cook

*Onomeris underwoodi* was the first opisthandrous millipede collected in North America. Dr. O. F. Cook (1896) established a new genus and a new family for it and named it after his friend, Prof. L. M. Underwood, with whom he collected more than 100 specimens at Auburn, Lee County, Alabama. His family Onomeridae has been rejected; the differences between *Onomeris* and the European genus *Glomeris* are even less than the differences between some of the other genera of the Glomeridae. Until now, *Onomeris underwoodi* has been known only from Cook's description of the species, for the type specimens have been misplaced in the United States National Museum for many years and no additional collections have been reported. Within the past year I have collected it from the type locality and from four other sites in Alabama, Florida, and Mississippi. It probably occurs in western Georgia, also. No preference for any particular type of woods has been observed, but



each collection site is deeply shaded, very humid, and usually well drained. The oniscoid polydesmid *Desmonus earlei* has been collected with it at four sites.

The new collection records for *O. underwoodi* are listed below:

Alabama: *Choctaw Co.* Bladon Springs State Park, under magnolia leaves, 1 ♀; 3 miles northwest of Bladon Springs on highway 6, 2 ♂, 6 ♀, June 19, 1959. *Lee Co.* Chewacla State Park, 5 miles south of Auburn, in humus in dense mixed woods to the right of the bath house, 4 ♂, 2 ♀, June 14, 1959.

Florida: *Jackson Co.* Florida Caverns State Park, near Marianna, under a layer of moss on a rock at the entrance to the Natural Bridge, 3 ♂, 1 ♀, May 27, 1958.

Mississippi: *Jackson Co.* Ocean Springs, under 3 or 4 inches of fallen bark from a pine stump in marshy ground across Halstead Road from the entrance to the Gulf Coast Research Laboratory, 1 ♂, 6 ♀, mating, 3 larvae, Oct. 1, 1958. The following June I visited this site again; it was dry, and I found no more millipeds.

The body surface of *Onomeris underwoodi* is smooth and shining and covered with a fine pubescence that can easily be seen on dry specimens with a stereomicroscope; Cook reported that it is "finely punctate" and did not mention the pubescence. Specimens in which the color is developed are brown or black-brown with two large, lateral, almost colorless, ovoid areas on segments 2 through 11. The margins of all tergites, most of the head, the antennae, the legs, and the venter are also colorless. The almost colorless first segment is crossed by two horizontal brown lines. Five colorless ocelli are in a single series, and at the posterior end of the series and slightly below it is one black ocellus. Segments 1 and 2 are as in *Trichomeris sinuata* except that on segment 2 there are 4 or 5 striae across the dorsum. Segment 2 through 11 have the posterior margin of the tergites straight. The combined length of segments 10 and 11 is equal to the length of segment 9. The last segment is large and ood-like, with the posterior margin straight in the female and slightly concave in the male. This character makes it possible to distinguish the sexes even when the animals are tightly coiled. The body width is from about 2.1 to 2.7 mm. The length is between about 4.1 and 5 mm. The male is usually about ten per cent smaller than the female.

In the male, the seventeenth legs consist of a lamellar, divided coxosternum and a telopodite composed of three small segments. The eighteenth legs consist of a lamellar, undivided coxosternum and a telopodite composed of four small segments; the thickness of the distal segment is slightly less than that of the others and it is covered with short setae. The nineteenth legs, or gonopods, are much larger than the two preceding pairs; between them is a single, medial sternal process that is rounded at the apex, and adjacent to it is a pair of slightly longer processes that are acute at the apex and setose along the mesial surface. The telopodite of the gonopods is composed of four segments. Each of the first and second segments bears a mesially directed, finger-like process with a single long seta at the apex; the processes are similar except that the first one is about twice as thick and twice as long as the second. The second and third segments bear two mesially directed processes that are finely and inconspicuously corrugated; both are nar-

rowed at the apex, but the proximal one is much broader at the base than the more distal one. The terminal segment of the telopodite is curved mesiad, resembling in shape and in length the processes of the three basal segments; it bears a small, inconspicuous subterminal spine.

*Variation.* One of the three males from Florida Caverns State Park has been dissected. It differs from all of the others in my collection in that the medial sternal process between the gonopods is slightly broader and the ventral margin is slightly indented in the middle. The indentation is not all as deep as in *O. australora*.

*Relationship.* The only other species in the genus, *Omeris australora*, is similar to *O. underwoodi* in size and color pattern, but it is reported (Hoffman, 1950) to differ in the absence of pubescence on the body surface and in the absence of the following details from the telopodite of the gonopods: a mesial process on the first segment, a long seta on the apex of the mesial process of the second segment, and a subterminal spine on the terminal segment. So many differences suggest that the two species may not be congeneric. I have never seen *O. australora*.

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